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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/781,887	02/09/2001	Peter Joseph Hyzin	CMA-0315 (01)	9635
7590	12/22/2003			
LEON D. ROSEN Freilich, Hornbaker & Rosen 10960 Wilshire Blvd., Suite 1220 Los Angeles, CA 90024			EXAMINER LEE, HWA S	
			ART UNIT 2877	PAPER NUMBER

DATE MAILED: 12/22/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	09/781,887	HYZIN ET AL.	
	Examiner	Art Unit	
	Andrew H. Lee	2877	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 01 October 2003.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1,3,5,7-9,13 and 14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 13 and 14 is/are allowed.
- 6) ☒ Claim(s) 1,3,5 and 7-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All   b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                  | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

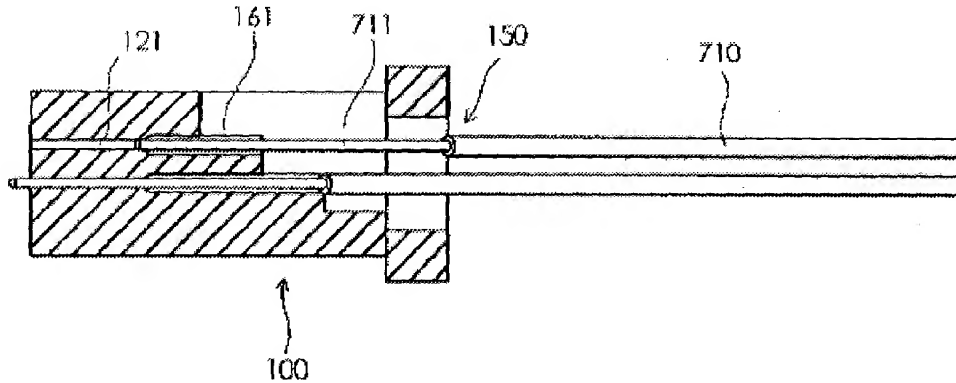
### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 3, 5, and 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sakai et al (5,815,621) in view of Aepli et al (5,790,762) and Boero et al (5,150,516).

3.



4.

As for claims 1, 3, and 7-9, Sakai et al (Sakai hereinafter) show an optical fiber connector comprising:

a housing (100) that has a mating face and a plurality of parallel fiber-receiving bores (121) extending in a longitudinal direction through the housing to the mating face thereof, with each bore having a front end portion that extends to the mating face of the housing, with each

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fiber (711) of a set of fibers extending through a different one of said bores of the housing, with each fiber having an end fixed in position in the bore;

the tips of each of said fibers lying in the housing and the mating face of the housing, all lie precisely flush and in a common optical plane;

Sakai does not expressly show that each of said bore front end portions has an inside diameter that is no more than about 110% of the outside of the fiber portion lying therein.

Aepli et al (Aepli hereinafter) shows an optical waveguide plug adhesive wherein the bore front end portions has an inside diameter that is no more than about 110% of the outside of the fiber portion lying therein since Aepli teaches that the bore has a tolerance of up to a few micrometers on the plus side, to the diameter of the glass fiber and Sakae teaches that the fiber has a diameter of 125  $\mu\text{m}$ . Thus the bore would have a diameter of about 127  $\mu\text{m}$ , which is less than 102% of the diameter of the fiber.

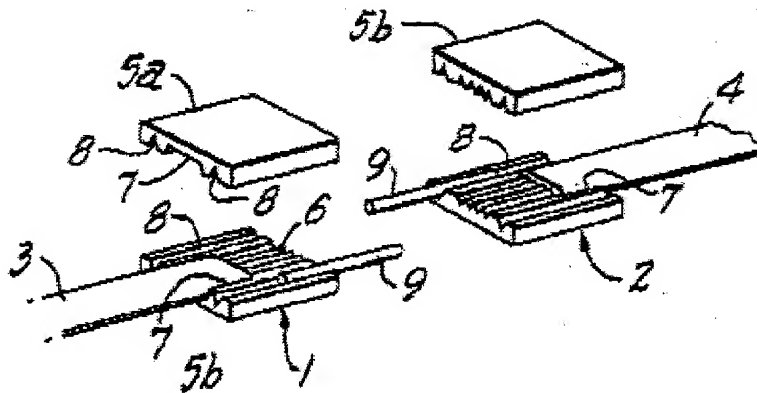
At the time of the invention, one of ordinary skill in the art would have modified Sakai such that each of said bore front end portions has an inside diameter that is no more than about 110% (102%) of the outside of the fiber portion lying therein in order to precisely center the fiber with adhesive bonding which secures the ends of the fibers (column 2, lines 26+).

Sakai does not show the pair of housings. Boero et al (Boero hereinafter) show a connecting means for ribbon optical fiber wherein the a pair of connectors are substantially identical with an alignment hole (8) on one end and an alignment pin (9) on the other end. At the time of the invention, one of ordinary skill in the art would have modified Sakai to have a pair of housings that are substantially identical with an alignment hole on one end and an alignment pin

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on the other end in order to make the connectors more modular and decrease production costs by making only one type of housing.

FIG. 1.



5. Claims 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sakai, Aepli, and Boero as applied to claim 1 above, and further in view of Hyzin (5,778,121).

Sakai and Boero do not show a groove with elastomeric seals. Hyzin shows a groove and an o-ring seal. At the time of the invention, one of ordinary skill in the art would have modified Sakai and Boero to have a groove with an elastomeric seal as suggested by Hyzin in order to seal out environmental elements such as dirt or water.

### *Allowable Subject Matter*

6. Claims 13 and 14 are allowed.

The following is a statement of reasons for the indication of allowable subject matter:

The prior art of record fails to show or to suggest a multi-fiber interconnect system comprising

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of all the elements as presently claimed further comprising a second substantially identical housing, each housing having opposite first and second sides and having first and second opposite flanges with first and second holes in each flange wherein each first hole lies closest to said first side and each second hole lies closest to said second side; a pair of panel mount screws, each lying in the first hole in a first of said flanges and the second hole in the second of said flanges of said first housing, for mounting said first housing on a panel; a pair of connector-joining screws, each lying in the second hole of said first flange and in the first hole of said second flange of said second housing, for projection into empty holes in said flanges of said first housing to join said second housing to said first housing.

#### *Response to Arguments*

7. Applicant's arguments with respect to claims 1, 3, 5, and 7-9 have been considered but are moot in view of the new ground(s) of rejection.

#### *Conclusion*

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after

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the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Papers related to this application may be submitted to Technology Center (TC) 2800 by facsimile transmission. Papers should be faxed to TC 2800 via the PTO Fax Center located in CP4-4C23. The faxing of such papers must conform with the notice published in the Official Gazette, 1096 OG 30 (November 15, 1989). The CP4 Fax Center numbers are 703-872-9318 for regular communications and 703-872-9319 for After Final communications

If the Applicant wishes to send a Fax dealing with either a Proposed Amendment or for discussion for a phone interview then the fax should:

- a) Contain either the statement "DRAFT" or "PROPOSED AMENDMENT" on the Fax Cover Sheet; and
- b) Should be unsigned by the attorney or agent.

This will ensure that it will not be entered into the case and will be forwarded to the examiner as quickly as possible.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew Hwa Lee whose telephone number is (703) 305-0538.

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The examiner can normally be reached on M-Th. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frank Font can be reached on 703-308-4881.

A handwritten signature in black ink, appearing to read "Frank L. Font". The signature is written in a cursive, flowing style.

Andrew Lee  
Patent Examiner  
Art Unit 2877  
December 15, 2003/ahl

Frank Font  
Supervisory Patent Examiner  
Art Unit 2877